

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: SESSIONS POND	Lake Area (ha):	14.16
Town: DUMMER	Maximum depth (m):	10.3
County: Coos	Mean depth (m):	5.0
River Basin: Androscoggin	Volume (m ³):	704500
Latitude: 44°42'20" N	Relative depth:	2.4
Longitude: 71°11'50" W	Shore configuration:	1.20
Elevation (ft): 1385	Areal water load (m/yr):	7.43
Shore length (m): 1600	Flushing rate (yr ⁻¹):	1.50
Watershed area (ha): 207.2	P retention coeff.:	0.59
% watershed ponded: 0.0	Lake type:	natural w/dam

BIOLOGICAL:

12 August 1997

DOM. PHYTOPLANKTON (% TOTAL)	#1	RHIZOLENIA 65%
	#2	DINOBRYON 30%
	#3	(NET PHYTO. WAS SPARSE)
PHYTOPLANKTON ABUNDANCE (units/mL)		
CHLOROPHYLL-A (µg/L)		7.14
DOM. ZOOPLANKTON (% TOTAL)	#1	KELICOTTIA >99%
	#2	
	#3	
ROTIFERS/LITER		24
MICROCRUSTACEA/LITER		<1
ZOOPLANKTON ABUNDANCE (#/L)		24
VASCULAR PLANT ABUNDANCE		Sparse
SECCHI DISK TRANSPARENCY (m)		3.9
BOTTOM DISSOLVED OXYGEN (mg/L)		0.4
BACTERIA (E. coli, #/100 ml)	#1	< 1
	#2	
	#3	

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m):	4.4
Hypolimnion volume (m ³):	82500
Anoxic volume (m ³):	38500

CHEMICAL:

Lake: SESSIONS POND

Town: DUMMER

		12 August 1997		
DEPTH (m)		2.0	4.5	8.0
pH (units)		6.9	7.0	6.1
A.N.C. (Alkalinity)		5.7	5.9	8.0
NITRATE NITROGEN		< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN		0.24	0.20	0.40
TOTAL PHOSPHORUS		0.008	0.007	0.018
CONDUCTIVITY (μ mhos/cm)		25.5	24.8	28.1
APPARENT COLOR (cpu)		17	19	30
MAGNESIUM		0.59		
CALCIUM		2.3		
SODIUM		1.0		
POTASSIUM		0.35		
CHLORIDE		< 2		< 2
SULFATE		4		3
TN : TP		30		22
CALCITE SATURATION INDEX		3.3		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1997

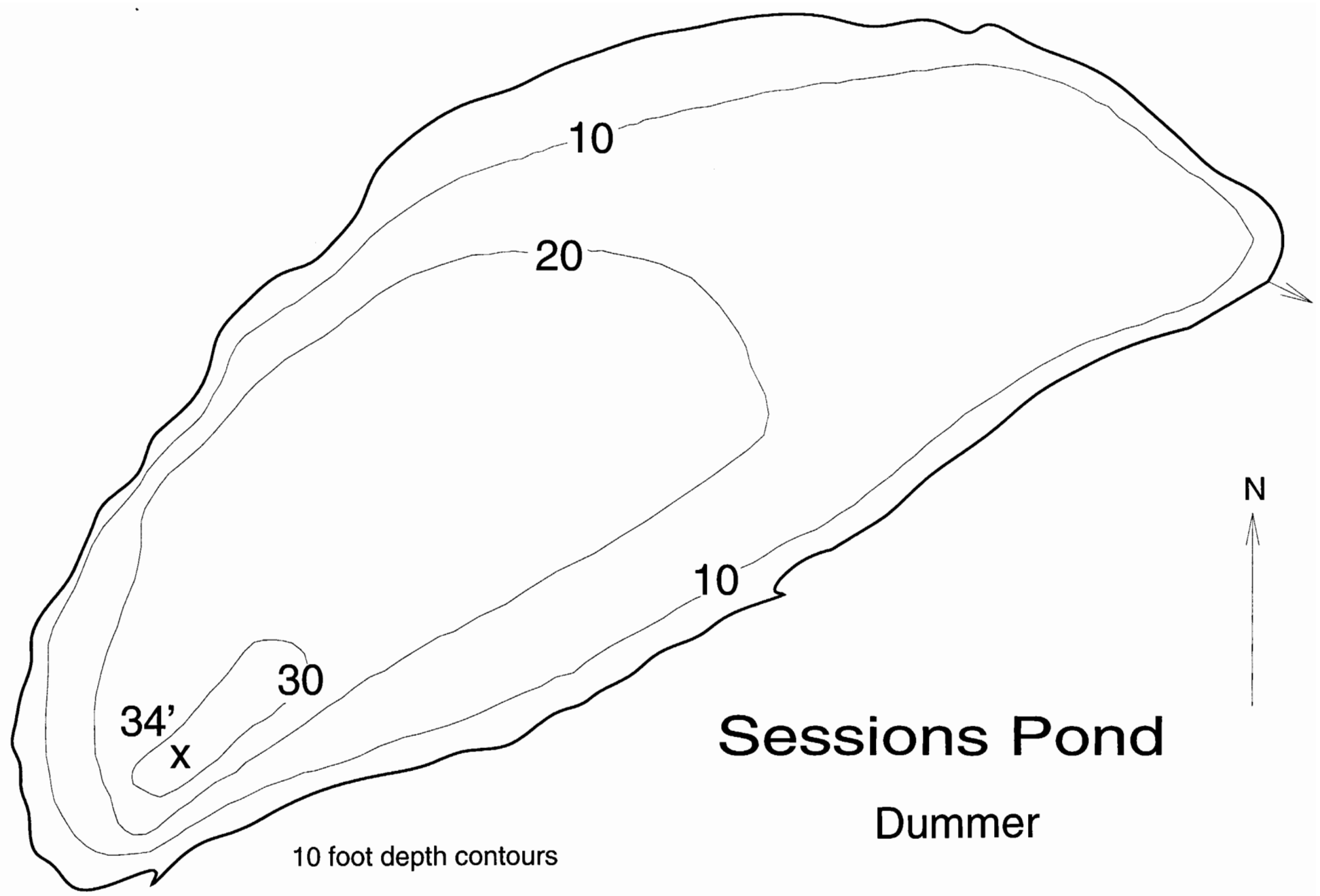
D.O. S.D. PLANT CHL TOTAL CLASS

6	2	0	1	9	Meso.
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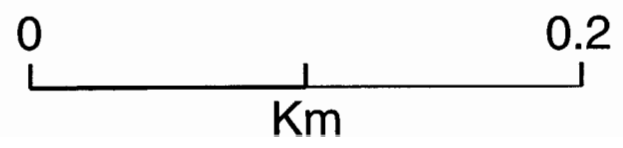
COMMENTS:

1. This pond was previously surveyed in 1992. The 1997 survey was done in conjunction with a special paleolimnological/bioassessment study. The pond was not re-sounded in 1997 and no winter samples were collected. There was little difference in water quality between the two dates but the rating changed. Sessions Pond is a borderline oligotrophic/mesotrophic pond.
2. The shoreline was lined with various shrubs including leatherleaf, sweet gale, buttonbush and blueberry -- but were not in the water. Only plants in the water or wet shoreline are depicted on the plant map.
3. A fallen log along the shore supported a sphagnum mat along with sundew and pitcher plants, but the plants were not actually in the water and are not listed in the plant survey.

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10 foot depth contours

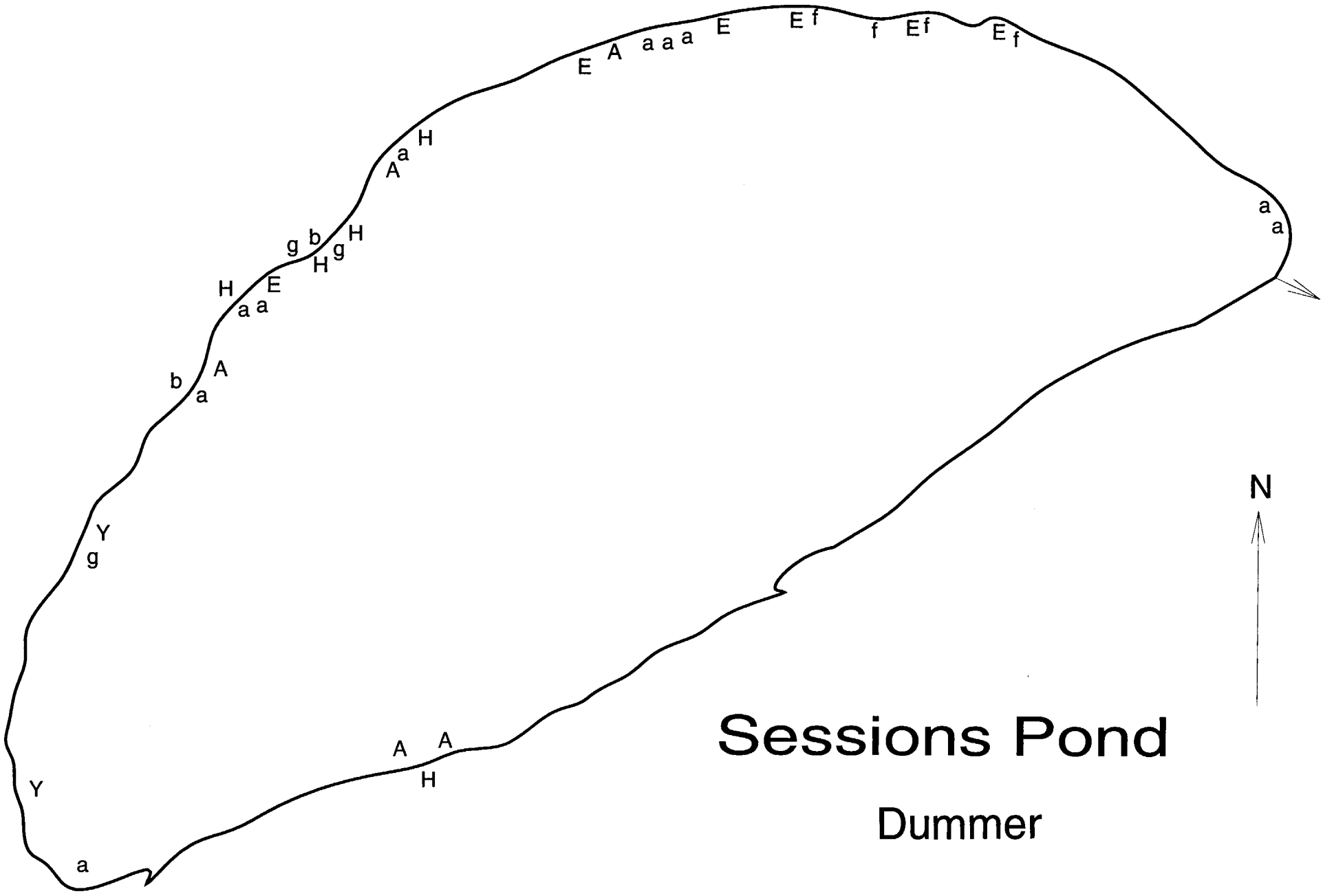


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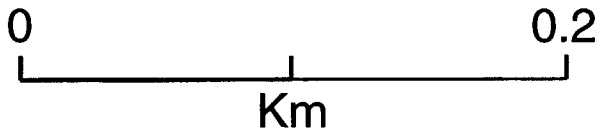
COMMENTS :

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Sessions Pond
Dummer



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